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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,481	01/31/2006	Moshe Einat	31267	5758

7590
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04/20/2007

EXAMINER

SOLOMON, LISA

ART UNIT	PAPER NUMBER
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2861

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

514

Office Action Summary	Application No.		Applicant(s)	
	10/566,481		EINAT ET AL.	
	Examiner		Art Unit	
	Lisa M. Solomon		2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) 1-37, 44-46, 48-58 and 60-79 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-43, 47 and 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/3/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-47 and 59 and Species 2, claims 38-47 and 59 in the reply filed on November 17, 2006 is acknowledged.

Applicant's further election without traverse of Sub-species 4, claim 47 in the reply filed on March 7, 2007 is acknowledged.

Claim Objections

2. Claim 40 is objected to for clarity reasons. Claim 40 states "said matrix is arranged into a substantially rectangular printing area dimensioned to give simultaneous printing coverage of standard sized printing media". It seems applicant is intending to claim the position of the printhead relative to the paper. However, it is unclear from the claim language if the position of the printhead is what applicant intends to claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 38-39, 42, and 59 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al. (6,652,068).

In re claim 38, *Hsu et al. (068)* teaches an ink jet print head (210, Fig. 16) [Column 5 lines 32-36] comprising a print head matrix (210, 220, Fig. 16) [Column 5 lines 34-36], the matrix (210, 220) having a plurality of nozzles (112, Fig. 16) [See Fig. 16] for bubble formation and expulsion opening onto a print side surface (side of printhead where nozzle layer (102, Fig. 16) is mounted) of said matrix [Column 3 lines 36-39] and a plurality of local reservoirs (132, 134, 136, 196, and 216, Fig. 16), associated with respective ones of said nozzles [Column 5 lines 47-53, See also Fig. 16], opening onto an ink supply surface (bottom half of print cartridge (220, Fig. 16)) of said matrix [See Fig. 16].

In re claim 39, *Hsu et al. (068)* teaches the ink jet print head of claim 38, wherein each one of said plurality of nozzles (112) is arranged with its own respective local ink storage reservoir (132, 134, 136, 196, and 216) [Column 5 lines 47-53, See Fig. 16].

In re claim 42, *Hsu et al. (068)* teaches the ink jet print head of claim 38, wherein said print side surface (the side of the printhead where the nozzle layer (102) is mounted) and said ink supply surface (bottom of the print cartridge (220)) are respectively opposite sides of said matrix (210, 220) [See Fig. 16].

In re claim 59, *Hsu et al. (068)* teaches an ink jet printing head (210, Fig. 16) comprising a plurality of nozzles (112, Fig. 15 and 16) for forming and expelling ink droplets for printing onto a print medium [Column 3 lines 36-39], wherein the plurality of nozzles (112) is arranged into a two dimensional grid substantially to be coextensive with a standard size print medium [See Fig. 15].

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hsu et al. (6,652,068)* in view of *Hermanson (5,581,284)*.

In re claim 40, *Hsu et al. (068)* teaches the ink jet print head of claim 38 [see rejection above], wherein said matrix is arranged into a substantially rectangular printing area dimensioned to give simultaneous printing coverage of standard sized printing media [See Fig. 15, Column 7 lines 4-6].

In re claim 41, *Hsu et al. (068)* teaches the ink jet print head of claim 40 [see rejection above], arranged for printing on said standard sized printing media during a period of unchanged relative displacement between said print head and said printing media [See Fig. 15, Column 7 lines 4-6].

However, Hsu et al. (068') does not explicitly teach the inkjet printhead to be a pagewidth or serial printer.

Hermanson (284') teaches an inkjet printhead which can be used as a pagewidth or serial printer [Column 6 lines 44-50].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the inkjet printhead of Hsu et al. (068') in an inkjet printer or apparatus and for such an inkjet printhead to be capable of use as a pagewidth or serial printhead as taught by Hermanson (284') for the purposes of extending the life of the printhead [Hermanson (284') Column 1 lines 6-8]. Therefore, the inkjet printhead matrix is capable of being arranged into a substantially rectangular printing area dimensioned to give simultaneous printing coverage of standard sized printing media and arranged for printing on said standard sized printing media during a period of unchanged relative displacement between said print head and said printing media. (Claims 40-41).

4. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu et al. (6,652,068) in view of Kurata et al. (2001/0040610).

In re claim 43, *Hsu et al. (068')* teaches the ink jet print head of claim 38 [see rejection under 35 USC 102 above]. However, Hsu et al. (068') does not teach the ink jet head further comprising further comprising an ink distribution device associated with said ink supply surface for distributing ink to reach said local ink reservoirs.

Kurata et al. (2001/0040610) teaches ink jet head further comprising an ink distribution device associated with said ink supply surface for distributing ink to reach said local ink reservoirs [Paragraph 50 lines 12-20, Paragraph 52, Paragraphs 57-58].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an ink distribution device associated with said ink supply surface for distributing ink to reach said local ink reservoirs as taught by *Kurata et al. (2001/0040610)* in the ink jet head of *Hsu et al. (068')* for the purposes of replenishing ink into the ink reservoirs [*Kurata et al. (2001/0040610)* Paragraph 57 lines 3-6].

5. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Hsu et al. (6,652,068)* in view of *Kurata et al. (2001/0040610)* as applied to claim 43 above, and further in view of *Cowger et al. (5,010,354)*.

In re claim 47, *Hsu et al. (068')* in combination with *Kurata et al. (2001/0040610)* teaches the ink jet print head of claim 43 [see rejection above]. However, *Hsu et al. (068')* and *Kurata et al. (2001/0040610)* both do not teach the ink distribution device is a tubeless distribution device.

Cowger et al. (354') teaches an ink distribution device is a tubeless distribution device [Column 2 line 55-Column line 6].

It would have been obvious to one of ordinary skill of the art at the time the invention was made to provide a tubeless ink distribution device as taught by *Cowger et al. (354')* in the ink jet head of *Hsu et al. (068')* in combination with *Kurata et al.*

Art Unit: 2861

(2001/0040610) for the purpose of maintaining pressure within an ink reservoir at less than ambient pressure [Cowger et al. (354') Column 2 line 68-Column 3 lines 3].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Solomon whose telephone number is (571) 272-1701. The examiner can normally be reached on Monday - Friday from 8:00 am - 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lisa M. Solomon
Patent Examiner
4/12/2007



MATTHEW LUU
PRIMARY EXAMINER